

What is Claimed:

1. An assembly suitable for thermally assisted/thermal information processing control, the assembly comprising:

1) a temperature sensing element for measuring/infering the temperature of a media;

and

2) a controller responsive to the temperature sensing element and capable of inputting power to a media based on a measured/inferred temperature of the media.

2. An assembly according to claim 1, wherein the temperature sensing element is selected from the group consisting of a thermocouple, a thermistor, and a piezoelectric.

3. An assembly according to claim 1, wherein the temperature sensing element comprises write coils of a magnetic recording head.

4. An assembly according to claim 1, wherein the temperature sensing element comprises a magnetic resistive sensor.

5. An assembly according to claim 1, wherein the controller comprises an actuator selected from the group consisting of a piezoelectric actuator, an electromagnetic actuator, and an air-bearing mechanism.

6. An assembly comprising:

- 1) a directed energy source for heating a media;
- 2) a temperature sensing element for measuring/infering the temperature of the media;

and

- 3) a controller responsive to the temperature sensing element and capable of inputting power to a media based on a measured/inferred temperature of the media.

7. An assembly according to claim 6, wherein the temperature sensing element is selected from the group consisting of a thermocouple, a thermistor, and a piezoelectric.

8. An assembly according to claim 6, wherein the temperature sensing element comprises write coils of a magnetic recording head.

9. An assembly according to claim 6, wherein the temperature sensing element comprises a magnetic resistive sensor.

10. An assembly according to claim 6, wherein the controller comprises an actuator selected from the group consisting of a piezoelectric actuator, an electromagnetic actuator, and an air-bearing mechanism.

11. An assembly according to claim 6, wherein the controller comprises a servo-loop which feeds on the energy output by the energy source for adjusting the temperature of a media.